Calcified thymoma: An egg in the chest

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A 46-year-old man was admitted to The First Affiliated Hospital with a 3-month history of progressive dyspnea on exertion and a weight loss of approximately 5 kg. There were no symptoms of myasthenia gravis, such as weakness, ptosis, or diplopia. His laboratory test results showed no significant abnormality. The posteroanterior chest x-ray revealed a huge circular dense mass in the left mediastinum (Figure 1, A). Chest computed tomography demonstrated an elliptic mass with a well-defined calcified outer shell in the left anterior mediastinum (Figure 1, B, C). Three-dimensional reconstruction of thoracic computed tomography scan revealed a globular mass within the anterior mediastina with a visible nourishing blood vessel, without apparent invasive growth into the adjacent structures (Figure 1, D).

At operation, a midline incision of the chest was performed, and a firm, large calcified mass was discovered in the left anterior mediastinum without extension into the thoracic cavity and the pericardium (Figure 2, A). The well-encapsulated tumor was removed with all mediastinal adipose tissue. The tumor was elliptic in shape and measured 5 × 4 cm; on cut, the mass appeared as a calcified outer shell just like an eggshell (Figure 2, B), inside which there was a great deal of yellowish liquid and some solid tissue with a macroscopic appearance like fish meat (Figure 2, C). On the basis of the World Health Organization classification, the solid tissue was diagnosed as a type B1 thymoma (Figure 2, D).

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FIGURE 1. A, Huge circular dense mass in the left mediastinum is shown on posteroanterior chest radiographs. B, C, Axial and sagittal computed tomography scan shows an elliptic mass with a well-defined calcified outer shell in the left anterior mediastinum. D, Three-dimensional reconstruction of thoracic computed tomography scan demonstrates an anterior mediastinal globular mass in close apposition to the left pulmonary artery with a visible nourishing blood vessel (*arrow*).

FIGURE 2. A, Intraoperative photograph. B, The excised tumor just like an egg was 5×4 cm in diameter. C, On cut section, the mass appeared as a calcified outer shell, like an eggshell, inside of which there was a great deal of yellowish liquid and some solid tissue with a macroscopic appearance like fish meat. D, Neoplastic tumor cells with polygonal nuclei are intermixed with lymphocytes (hematoxylin–eosin stain; original magnification $\times 400$). Histologic analysis was consistent with type B1 thymoma.